



October 2, 2006

06ENV-043

US EPA Region 7 Federal Building 210 Walnut Street, Room 473 Des Moines, IA 50309-2109 Attn: Gary Witkovski

Subject: Climax Molybdenum Company EPA RCRA ID# IAD000222653

TCLP Data for RCRA Audit Performed on 08/22/2006

Dear Mr. Witkovski,

The enclosed documents are the toxicity characteristic leachate procedure analytical results from the University Hygienic Laboratory (UHL) for the materials that you requested during your facility inspection on August 22, 2006. Representative samples of the spent parts washer solvent (Electra 221) and the maintenance shop baghouse dust were submitted to the UHL. The results demonstrate that neither of the samples exhibit the toxicity characteristic. These results will be attached to our existing waste characterizations already on file for these materials.

If you have any questions, please contact me at (319) 463-2224.

Sincerely,

Scott Ickes

Manager of QA and Environmental Affairs

Climax Molybdenum Co.

cc: James Aycock

REC'D OCT 0 6 2006 RESP

469267



THE UNIVERSITY OF IOWA



when the 5-17-2 ANALYSES + NOT EXTRAN

Toxicity Characteristic Leaching Procedure (TCLP)

EPA Method 1311

Section 1.2 "If a total analysis of the waste demonstrates that individual analytes are not present in the waste, or that they are present but at such low concentrations that the appropriate regulatory levels could not possibly be exceeded, the TCLP need not be run."

TCLP Metals:

Less than 100 mg/Kg
Less than 20 mg/Kg
Cd, Se
Less than 2000 mg/Kg
Ba
will not exceed the 5 mg/l TCLP limit
will not exceed the 1 mg/L TCLP limit
will not exceed the 100 mg/L TCLP limit
will not exceed the 0.2 mg/L TCLP limit

Minimum required sample size is 150 g, however it is always better to have more in the event the extraction or analysis needs to be repeated for some reason.

The University Hygienic Laboratory will provide clean glass jars or plastic containers, however if the analysis is for metals only, a large clean plastic bag will be accepted. Plastic containers cannot be used if the sample will be analyzed for pesticides or organic compounds. If the sample contains large pieces of material, the particle size will need to be reduced to less than 9.5 mm.

Sampling information forms will also be provided. Please indicate the analyte as total or as TCLP procedure. You may also specify analysis as total and only if elevated run the full TCLP.

When the analyte is total Lead (Pb) the result is routinely reported as percent by weight. You may specify results in mg/Kg to facilitate comparison. All other metals are routinely reported in mg/Kg.

TAB 5/99

HYGIENIC LABORATORY

Henry A. Wallace Building Des Moines, Iowa 50319 Iowa's Environmental and Public Health Laboratory Telephone: 515/281-5371 Telefax: 515/243-1349 http://www.uhl.ulowa.edu



Hygienic Laboratory

The University of Iowa

Date of report: 09-28-2006

CLIMAX MOLYBDENUM COMPANY 2598 HIGHWAY 61 SOUTH **PO BOX 220** FORT MADISON IA 52627

200663789 Sample Number **Date Received**

08-25-2006

Project

Date Collected Collection Site Collection Town

08-24-2006 06:00 climax molybdenum co.

Fort Madison

Description

Reference

parts washing fluid-used **ELECTRA 221**

Collector

BARTHOLOEW JOE

Phone (319) 463-2222

Purchase Order

F21593

Comments

Upon arrival, sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions.

Results of Analyses

Total Barium

* O ***	25 442 144111	,	- 5#
	Concentration		
Total Barium	0.31	**************************************	0.05,

Date Analyzed: 09-20-2006

Method: EPA 200.7

Analyst: DC Verified: DS

Total	Cadmium 🔧 🐧 🖰 💆	
Analyta	Concentration	Quantitation trum
Total Cadmium	0.07	0.05

Comments The quantitation limit is adjusted for the amount of sample analyzed.

Date Analyzed: 09-20-2006 Method: EPA 200.7

Analyst: DC

Verified: DS

10tal Chromium					
		Organization Limit			
					
Analyte	lmo/i	(/ T			
Total Chromium	112	10.05			
Total Chromath	1.2	0.03			

Comments The quantitation limit is adjusted for the amount of sample analyzed. Date Analyzed: 09-20-2006

Analyst: DC

Method: EPA 200.7

Verified: DS

10tal Silver				
Analyte	Concentration mg/L	Quantitation Limit mg/L		
Total Silver	0.23	0.05		

Comments Analysis reported at higher quantitation limit due to matrix interference. Date Analyzed: 09-21-2006

Analyst: SB Verified: DS

Page 1 - Continued on next page

Method: EPA 200.8



Hygienic Laboratory

The University of Iowa

Page 2 Sample Number 200663789

Total Arsenic

•	- Com Interne	
Analyte	mad	Quantitation Limit mg/L
Total Arsenic	<0.05	0.05
Comments Analysis reported at higher quantitat	ion limit due to matrix interference	

Comments Analysis reported at higher quantitation limit due to matrix interference.

Date Analyzed: 09-21-2006

Method: EPA 200.8

Analyst: SB

Verified: DS

Total Selenium

1 Open Dolontum					
Analyte	mg/L	Quantitation Limit mg/L			
Total Selenium	0.25	0.05			

Analysis reported at higher quantitation limit due to matrix interference.

Date Analyzed: 09-21-2006 Method: EPA 200.8

Analyst: SB

Verified: DS

Total Lead

Town Loud				
Analyte	I <u></u>	mo/I		
Total Lead	8.0	0.50		

Comments The quantitation limit is adjusted for the amount of sample analyzed.

Date Analyzed: 09-20-2006

Analyst: DC

Verified: DS

Method: EPA 200.7

Total Mercury

Analyte		11112712
Total Mercury	< 0.0002	0.0002
Date Analyzed: 09-14-2006		Analyst: MP

Method: EPA 245.2

Verified: SB

Description of units used within this report

mg/L - Milligrams per Liter

Quant Limit - Lowest concentration reliably measured

Iowa Laboratory Certification No. 027. AIHA, NELAP, USEPA, NVLAP #101288-0 and other credentials available upon request.

If you have any questions please call Sherri Marine at 800/421-IOWA (4692) or 319/335-4500. Thank you,

Page 2 - End of Report



Hygienic Laboratory

The University of Iowa

Date of report: 09-28-2006

CLIMAX MOLYBDENUM COMPANY 2598 HIGHWAY 61 SOUTH PO BOX 220 FORT MADISON IA 52627 Sample Number Date Received Project 200

Date Collected Collection Site Collection Town

lection Town
Description
Reference

Collector
Phone
Purchase Order

200663790 08-25-2006

08-24-2006 06:00 climax molybdenum co. Fort Madison

welding hood barrel

BARTHOLOEW JOE (319) 463-2222

er | F21593

Comments

Method: EPA 1311

Upon arrival, sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions.

Results of Analyses

TCLP Extraction

	Concentration pH Units	
Leachate pH	5.3	
Date Analyzed: 09-05-2006		Analyst: MC

O06 Analyst: MC Verified: LF

Toxicity Characteristic Leaching Procedure (TCLP)

Toxicity Characteristic Leaching Troccudic (TCLI)						
	Leachate	Regulatory		Analyst/	Date	
Analyte	mg/L	Level mg/L	Method	Verifier	Analyzed	
Arsenic	< 0.50	5.0	EPA 1311/6020	SB/TAB	09-10-2006	
Barium	<10.0	100.0	EPA 1311/6020	SB/TAB	09-10-2006	
Cadmium	<0.10	1.0	EPA 1311/6020	SB/TAB	09-10-2006	
Chromium	< 0.50	5.0	EPA 1311/6020	SB/TAB	09-10-2006	
Lead	< 0.50	5.0	EPA 1311/6020	SB/TAB	09-10-2006	
Mercury	< 0.02		EPA 1311/7471A	MP/SB	09-26-2006	
Selenium	<0.10	1.0	EPA 1311/6020	SB/TAB	09-10-2006	
Silver	< 0.50	5.0	EPA 1311/6020	SB/TAB	09-10-2006	

Description of units used within this report

mg/L - Milligrams per Liter

pH Units - pH Units

Quant Limit - Lowest concentration reliably measured

Iowa Laboratory Certification No. 027. AIHA, NELAP, USEPA, NVLAP #101288-0 and other credentials available upon request.

If you have any questions please call Sherri Marine at 800/421-IOWA (4692) or 319/335-4500. Thank you.

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CERTIFIED MAIL...



P.O. BOX 220 • FORT MADISON, IOW



7003 3110 0005 9922 7103





EPA Region III

ARTD/RESP

901 N. 5th Street

Kansas City, KS 66101-2907

Atn: Mr. James Aycock

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